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(54) GLUCOSE ENDOCYTOSIS INHIBITOR AND GLUCOSE TRANSPORTER 4
TRANSLOCATION INHIBITOR IN FAT CELL, GLUCOSE ENDOCYTOSIS ACTIVATOR IN
MUSCLE CELL, AND FAT-REDUCED FOOD AND DRINK

(57)Abstract:

PROBLEM TO BE SOLVED: To provide new applications of an extract of tea and components thereof, based on results of studies on effects of the tea and the components on glucose endocytosis activity, functions of glucose transporter 4 (GLUT4), or the like.

SOLUTION: A glucose endocytosis inhibitor in fat cells containing catechin gallate as an active ingredient and a GLUT4 translocation inhibitor in the fat cells containing any one of the catechin gallate, catechin together with a gallate ester, and the tea extract as an active ingredient are provided in the specification, respectively. The inhibitors each reduce an amount of fat cells, so that obesity and various diseases caused by the obesity are treated and prevented by the inhibitors. On the other hand, the inhibitors activate the endocytosis of the glucose in the muscle cell, so that the excess glucose is endocytosed into the muscle cell and consumed. Therefore, the inhibitors never increase sugar concentration in the blood, nor give lassitude caused by obesity control.

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